

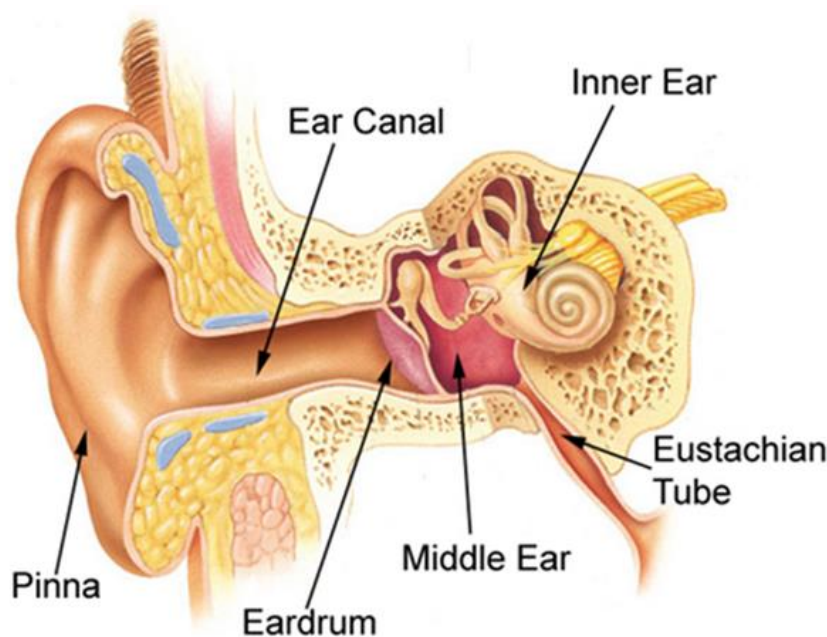
Patulous Eustachian Tube Dysfunction

Ear, Nose & Throat Department

What are the Eustachian Tubes?

The Eustachian tube runs from the very back of the nose to the middle part of the ear. We have one tube on either side.

At rest the tubes are shut; they typically open briefly when we swallow, yawn or chew, or clear our ears like on an aeroplane. This allows air to get into the middle ear and any mucus to get out. Their job is to equalise pressure on either side of the eardrum. This ensures that pressure behind the eardrum is the same as outside the ear.



What is Patulous Eustachian Tube Dysfunction?

Eustachian Tube “dysfunction” is any time when this tube is not working properly and is causing symptoms.

For some people this is because the tube is blocked or closed too much, however, in *Patulous* Eustachian Tube Dysfunction (or pETD) we think that the problem is caused by the tube being open too much (or all the time) – when it should be closed. In fact, for some people, the symptoms can be better during a cold when the nose is slightly swollen on the inside and the tube more closed.

What are the symptoms?

For some people they will have no real symptoms of a patulous eustachian tube, but for others there can be a range of symptoms. This can include:

- Hearing internal body noises more loudly – such as your own voice, your own breathing, or heartbeat
- A sense of fullness or pressure in the ears
- A sense of reduced hearing or mild tinnitus

Why does it happen?

We don't always find a cause, or reason why patulous eustachian tube dysfunction develops. However there are a number of situations when we know it can appear:

- After significant weight loss
- After radiotherapy & chemotherapy
- Due to hormonal changes, such as hormone therapy, pregnancy or the menopause
- Rarely, with allergies or Gastro-oesophageal reflux
-

Are there any tests?

In most cases an ENT surgeon will diagnose Patulous Eustachian Tube Dysfunction based upon your history and examination findings. It may be possible to see your eardrum moving when you breathe or talk.

It will also be important to examine the back of the nose with a flexible camera, to assess the opening of the eustachian tube in the nose.

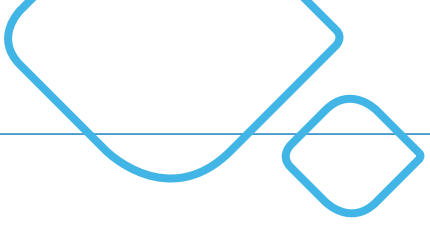
In some cases a special pressure test can be used to check for the eardrum moving.

What is the treatment?

For many people no treatment is required at all. Patulous eustachian tube dysfunction is not a worrying condition, and is not something that is suggestive of a more serious underlying condition. In many cases the symptoms will come and go, and there is nothing to suggest it will progress or worsen with time.

However, for some people the symptoms can be quite distressing and debilitating. In these cases treatment is aimed at helping to either partially re-block the tube or relieving the symptoms.

1. Reverse any possible underlying causes:
 - a. If you and your ENT surgeon feel that symptoms may be from an allergy or gastric reflux then addressing these may help
 - b. Try to *avoid* using nasal decongestants or regular strength nasal saline rinses
 - c. Try reducing your caffeine intake
 - d. Make sure you are not too dehydrated, drink plenty of water

- 
2. Hypertonic saline solution:
 - a. Around half of patients find this works well for them
 - b. You can use it as often as you need
 - c. There are two different methods (see which works best for you)
 - d. 'How to use' instructions are at the end of this leaflet
 3. A grommet in the eardrum:
 - a. For some people a small plastic tube placed under local anaesthetic into the eardrum can help with symptom relief
 - b. Further information on grommets can be provided by your ENT surgeon
 4. Stiffening procedure to the eardrum:
 - a. If your eardrum is very mobile, an operation to thicken or stiffen it can sometimes help reduce symptoms
 - b. Further information on "Cartilage Tympanoplasty" can be provided by your ENT surgeon
 5. Eustachian Tube injection:
 - a. Under General anaesthetic a small camera is placed up the nose, and a small amount of medical filler injected into the opening of the eustachian tube
 - b. This can work very well for lots of people, however it can sometimes be a short term solution, and can come with side effects. You can discuss this more with your ENT surgeon if you are interested in this treatment.

Hypertonic Saline nasal rinse for Patulous Eustachian Tube Dysfunction

Saline (salt water) in the nose can be very relieving for a range of nasal and sinus symptoms. In many cases we use it to relieve nasal congestion, however many people (about half) find that it significantly reduces the pETD symptoms.

These rinses can be used as little or as often as you find useful.

There are a number of ways of making up slightly different saline solutions and you may wish to see what works best for you. Some solutions can be slightly more irritating in the nose than others, but this irritation may help to close up the eustachian tube a little.

1. Try a proprietary nasal rinse – such as NeilMed sinus rinse kit
2. Try using a 'hypertonic' solution of NeilMed rinse, by using two sachets in a single wash bottle. Use the same solution and same water volume, just add two sachets
3. Instead of the proprietary rinse sachets, put half a teaspoon of iodinated table salt into the bottle and rinse as above

Contact us-

Reception Telephone number – 01225 824550

ENT Secretary Telephone number – 01225 825523

ENT email address – ruh.tr.ent@nhs.net

Royal United Hospitals Bath NHS Foundation Trust
Combe Park, Bath, BA1 3NG

01225 428331 | www.ruh.nhs.uk

If you would like this leaflet in email form, large print, braille or another language, please contact the Patient Support and Complaints team on 01225 825656.

Date of publication: April 2024 | Ref: RUH ENT/028
© Royal United Hospitals Bath NHS Foundation Trust

